PATENT COOPERATION TREATY

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From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

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PCT

WRITTEN OPINION
(PCT Rule 66)

Date of mailing *(day/month/year)*	29.12.2004
Applicant's or agent's file reference: E-1961/03	**REPLY DUE** **within 2 month(s)** from the above date of mailing

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/EP 03/51112	29.12.2003	30.12.2002

International Patent Classification (IPC) or both national classification and IPC
F16H7/12

Applicant
DAYCO EUROPE S.R.L. ET AL

1. This written opinion is the **first** drawn up by this International Preliminary Examining Authority.

2. This opinion contains indications relating to the following items:

I	☒	Basis of the opinion
II	☐	Priority
III	☐	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
IV	☐	Lack of unity of invention
V	☒	Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
VI	☐	Certain documents cited
VII	☐	Certain defects in the international application
VIII	☐	Certain observations on the international application

3. The applicant is hereby **invited to reply** to this opinion.

When? See the time limit indicated above. The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(d).

How? By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

Also: For an additional opportunity to submit amendments, see Rule 66.4. For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 bis. For an informal communication with the examiner, see Rule 66.6.

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.

4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 30.04.2005

Name and mailing address of the international preliminary examining authority:

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I. Basis of the opinion

1. With regard to the **elements** of the international application *(Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed")*:

Description, Pages

1-13 as originally filed

Claims, Numbers

1-8 as originally filed

Drawings, Sheets

1/4-4/4 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

   These elements were available or furnished to this Authority in the following language: , which is:

   - ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
   - ☐ the language of publication of the international application (under Rule 48.3(b)).
   - ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3)..

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

   - ☐ contained in the international application in written form.
   - ☐ filed together with the international application in computer readable form.
   - ☐ furnished subsequently to this Authority in written form.
   - ☐ furnished subsequently to this Authority in computer readable form.
   - ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
   - ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

   - ☐ the description, pages:
   - ☐ the claims, Nos.:
   - ☐ the drawings, sheets:

5. ☐ This opinion has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

6. Additional observations, if necessary:

V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1,7,8
Inventive step (IS)	Claims	1,5,6,7,8
Industrial applicability (IA)	Claims	

2. Citations and explanations

see separate sheet

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Reference is made to the following documents:
   D1: WO 00/77422 A (SCHAEFFLER WAELZLAGER) 21 December 2000 (2000-12-21)
   D2: US-A-5 919 107 (STEPNIAK JACEK) 6 July 1999 (1999-07-06)
   D3: US-A-4 906 222 (HENDERSON DEWEY D) 6 March 1990 (1990-03-06)

2. The document D1 is regarded as being the closest prior art to the subject-matter of claim 1, and discloses on page 12, paragraph 2 (the references in parentheses applying to this document): A two-arm belt tensioner for a belt drive, comprising: a fixed portion (32), designed to be fixed to a supporting structure; a first arm (7) and a second arm (8), carried by said fixed portion (54) and hinged thereto about a common axis; a first pulley (20) and a second pulley (21), mounted idle on respective ends of said arms (7,8) and designed to co-operate with respective branches (23a, 23b) of a belt (23) of said drive; and elastic means (14), which force said arms (7,8) towards one another to maintain said pulleys (20, 21) in contact with said respective branches (23a, 23b) of the belt (23), said arms (23, 24) comprise respective first arrest elements, which are designed to interact with said fixed portion (32) to define respective first positions of arrest of said arms (7,8) under the action of said elastic means (27), and respective second arrest elements, which are designed to interact with said fixed portion (32) to define respective second positions of end-of-travel of said arms (7,8) under the action of the pull of said belt. The subject-matter of claim 1 is therefore not novel (Article 33(2) PCT).

3. The document D1 is regarded as being the closest prior art to the subject-matter of claim 1, and discloses on page 12, paragraph 2 (the references in parentheses applying to this document): A belt drive for connecting a reversible electric machine (2) to an engine shaft of an internal combustion engine, said electric machine (2) being operable as an electric machine for starting said internal combustion engine or a generator, said drive comprising: at least one first pulley (24) fitted on the engine shaft of said internal combustion engine; a second pulley (18) fitted on a shaft of said electric machine (2); and a belt (23) wound around said pulleys (18, 24), said belt (23) comprising: a first branch (23a) and a second branch (23b) set respectively between said first pulley (18), and said second

pulley (24) and between said second pulley (24) and said first pulley (18) in the direction of motion of the belt (23) itself; and a two-arm (7,8) belt tensioner, which comprises: a fixed portion (32), designed to be fixed to a supporting structure; a first arm (7) and a second arm (9), carried by said fixed portion (32) and hinged thereto abort a common axis; a first pulley (20) and a second pulley (21), mounted idle on respective ends of said arms (7,8) and designed to co-operate respectively with said first branch (23a) and with said second branch (23b) of said belt (23); and elastic means (14), which force said arms (7,8) towards one another to maintain said pulleys (20, 21) in contact with said respective branches (7, 8) of the belt (23); said arms (7,8) comprise respective first arrest elements, which are designed to interact with said fixed portion (32) to define respective first positions of arrest of said arms (7, 8) under the action of said elastic means (14); and respective second arrest elements, which are designed to interact with said fixed portion (32) to define respective second positions of end of travel of said arms (7,8) under the action of the pull of said belt (23). D1 also discloses the additional features of claim 8. The subject-matter of claims 7 and 8 is therefore not novel (Article 33(2) PCT).

4. The features of dependent claim 5 have already been employed for the same purpose in a similar belt tensioner, see document D2, column 2, line 19. It would be obvious to the person skilled in the art, namely when the same result is to be achieved, to apply these features with corresponding effect to a belt tensioner according to document D1, thereby arriving at a tensioner according to claim 5. Thus, no inventive step is present in the subject-matter of claim 5 (Article 33(3) PCT).

5. It is generally known to the person skilled in the art that the spring of document D1 is an equivalent to the spring of document D3 and can be interchanged with that feature where circumstances make it desirable. Hence, no inventive step is present in the subject-matter of claim 6 (Article 33(3) PCT).

5. The subject-matter of claim 2 differs from this known tensioner in that an appendage defining an element of contrast for said first and second arrest elements of said first and second arms is fixed to the base plate. The subject-matter of claim 2 is therefore new (Article 33(2) PCT).

The problem to be solved may be regarded as to make a simple base plate. Although an appendage defining an element of contrast for said first and second

arrest elements of an tensioner arm is known, using the same appendage for both tensioner arms is not known from nor is it rendered obvious by any available prior art document. Claims 3 and 4 are dependent on claim 2 and as such also meet the requirements of the PCT with respect to novelty and inventive step. The dependent claims 2-4 therefore meet the requirements of Articles 33(2) and 33(3) PCT.